

METHOD FOR REDUCING LEACHING IN METAL-COATED MEMS

ABSTRACT OF THE DISCLOSURE

A method is provided for preventing dopant leaching from a doped structural
5 film during fabrication of a microelectromechanical system. A microstructure that includes
the doped structural film, sacrificial material, and metallic material is produced with a
combination of deposition, patterning, and etching techniques. The sacrificial material is
dissolved with a release solution that has a substance destructive to the sacrificial material.
This substance also acts as an electrolyte, forming a galvanic cell with the doped structural
10 film and metallic material acting as electrodes. The effects of the galvanic cell are
suppressed by including a nonionic detergent mixed in the release solution.

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